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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/751,999

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Ali Najib Saleh

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08/04/2006

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EXAMINER

NGUYEN, HANH N

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,999

Applicant(s)	
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SALEH ET AL.

Examiner

Hanh Nguyen

Art Unit

2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 7/10/06.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-70, 111, 113-124, 126-137, 139-150, 152-163, 165-177, 179-191, 193-205 and 207-218 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 12/29/00:9/16/03:.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☒ Other: IDS 1/9/04.

Continuation of Disposition of Claims: Claims pending in the application are 38-70,111,113-124,126-137,139-150,152-163,165-177,179-191,193-205 and 207-218.

DETAILED ACTION

Claim Objections

Claims 51, 57, 111, 124, 137 are objected to because of the following informalities:

In claims 51 and 57, it is required that “a quality of service 3 capacity field” be rewritten as “a quality of service field”. Appropriate correction is required.

In claim 111, it is required that the word “and” on line 7 be deleted because there is another “and” on line 10.

Claim 124, 137, 150 have similar problems.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 177 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 177, the step of “ sending an acknowledgement to said downstream node, where said acknowledgement said hello packet” does not sequentially follows the step “process said link state advertisement”. The limitations is unclear.

Claims 179-190 are rejected because they depend on claim 177.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 38-52, 58-65 are rejected under 35 USC 102(b) as being anticipated by Allen et al. (US pat. 5,748,611).

In claim 38, Note that the protocol packet in the claimed invention is used to transmit from an origin node via neighbor nodes in order to find a target node. Examiner uses the PACK message in Allen et al. as the protocol packet because the PACK message (see col.6, lines 25-45) is a forward restoration message transmitted along each of the source A 's spans to tandem nodes which rebroadcast the PACK message to destination node; see fig.5 and 6).

In particular, Allen et al. discloses a networking protocol for a network comprising: a protocol packet sent from an origin node to neighbors of the origin nodes to find the target node (see fig.5 & 6, steps 504, 506, 508; col.6, lines 25-55; PACK messages are transmitted from a source node to tandem nodes which rebroadcast the PACK messages until a destination node receives it); the protocol packet is configured to record a protocol packet path from the origin node to the target node (see col.6, lines 37-42; each PACK message includes a hopcount field which is incremented as the PACK message traverses the network to reflect the number of spans traversed; see further at col.7, lines 25-50); the protocol packet comprises information regarding a topology of at least a portion of said network (see fig.7, the number of hopcount fields increase while the PACK message traverses the network shown in steps 702, 710, 712, 714, 716 represent the remain topology of network beside the failed link).

In claim 39, Allen et al. discloses protocol packet comprises header data (address of source and destination node in the PACK message) and command-specific data (PACK message comprises restoration request). See Abstract.

In claims 40-52, the limitations of these claims have been addressed in claim 38.

Claims 111, 113-124, 126-137, 139-150, 152-163, 165-177, 179-191, 193-205 and 207-218 are rejected under 35 USC 102(e) as being anticipated by Fukushima et al. (Pat. 6,490,246 B2).

In claims 111, 150, 163 and 205, Fukushima et al. discloses, a method of processing a get link state advertisement packet comprising receiving the get link state advertisement packet (fig.8, step 121, receiving a Hello packet/ routing protocol packet) at a downstream node (at routers 30; col.11, lines 55-60; fig.1), wherein the get link state advertisement packet (the Hello packet) is sent by a sending node (from router calculating unit 11; fig.2), the get link state advertisement packet comprises at least one node identifier that identifies a node in a network for which the sending node seeks a link state advertisement (see prior art, col.1, lines 45-55 and col.2, lines 23-28; each Hello packet comprises the router's ID and a list of other routers' IDs (at least one node identifier) in the network), and the downstream node and said sending node are nodes in the network (the two routers are connected to the same network); sending at least one link state advertisement from the downstream node to the sending node (fig.8, steps 122, 124 and fig.9, steps 131, 133; network link state information received from neighbor node); and sending an acknowledgement of the at least one link state advertisement to the downstream node (fig.9, step 135 and fig.10, step 143, sending update information).

Claims 113-123, 152-162, 165-176 and 207-218 are rejected because they depend on their parent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 124, 126-136, 137, 139-149, 177, 179-190, 191 and 193-204 are rejected under 35 USC 103(a) as being unpatentable over Fukushima et al. (Pat. 6,490,246 B2).

In claims 124, 137, 177 and 191, as explained in the rejection of claims 111, 150, 163 and 205, Fukushima et al., further discloses a processor coupled to a computer readable medium (fig.14, a processor 40 coupled to node memory 41). Eventhough Fukushima et al., does not disclose computer code encoded in the computer readable medium, but it is a well-known skill in the art to encode computer codes such as software instructions in computer readable medium like the memory 41. Therefore, it would have been obvious to one ordinary skilled in the art to encode computer code such as program instructions, in memory 41 of Fukushima et al. in order to configure network topology in a network nodes. The motivation is to determine the network connection as well as link connection statues.

Claims 126-136, 139-149, 179-190 and 193-204 are rejected because they depend on their parent claims 124, 137, 177 and 191 respectively.

Claims 53-57, 66-70 are rejected under 35 USC 103(a) as being unpatentable over Allen et al. (US pat. 5,748,611) in view of Fukushima et al. (Pat. 6,490,246 B2).

In claims 53-57, Allen discloses the pack message comprise hop count field, but does not that the protocol packet is a hello packet, test packet, get link state advertisement packet comprising link state advertisement field, neighbor field. The office notice is taken that the protocol packet is a hello packet which comprises link state advertisement, hop count field and neighbor field. Fukushima et al. (Pat. 6,490,246 B2) is referred to as a reference that shows the hello packet is a protocol packet comprising link state advertisement. See fig.8. Therefore, having hop count field, link state advertisement and neighbor field in the pack message of Allen et al. would have been obvious to one skilled in the art.

In claims 69 and 70, Allen does not discloses protocol packet is a link down packet. The office notice notice is taken that it is well-known skill in the art that when a link or a router is down, a protocol packet such as a link down packet is transmitted to the sender router to notify that the router has been down. For the configured packet, Fukushima discloses, in col.2, lines 25-35, that if a router has not received hello packet from other routers for longer than a fixed period, the router updates the contents of routing table and establishes another path to avoid the faulty router (protocol packet is a configure packet). Therefore, it would have been obvious that the protocol packet can be a link down packet to notify that a router has failed or a configured packet when the router establishes an alternate path.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Perlman et al. (Pat. 5,128,926);

Mahany et al. (Pat.6,374,311 B1);

Young (US pat. 5612,950).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8AM to 5PM. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 703-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



**HANH NGUYEN
PRIMARY EXAMINER**